

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Moody Landfill Fire - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #2
Progress POLREP
Moody Landfill Fire
C4Q6
Moody, AL
Latitude: 33.6187920 Longitude: -86.5295290

To: James Webster, USEPA R4 ERRPPB
Grady Springer, ADEM
Stephen Cobb, ADEM

From: Matthew Huyser, FOSC

Date: 1/22/2023

Reporting Period: 1/20/2023 to 1/22/2023

1. Introduction

1.1 Background

Site Number:	C4Q6	Contract Number:	
D.O. Number:		Action Memo Date:	1/18/2023
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	1/18/2023	Start Date:	1/18/2023
Demob Date:		Completion Date:	
CERCLIS ID:	ALN000420955	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response to a Landfill Fire

1.1.2 Site Description

The Alabama Department of Environmental Management (ADEM) considers the Site as a disposal area for vegetative debris (aka "green waste") with several piles of material in various states of management. The U.S. Environmental Protection Agency (EPA) and ADEM have documented the presence of construction debris within the landfill and as indicated by signs at the Site, the landfill also accepted asphalt waste. The Site was not constructed with a landfill liner or drainage controls. Layers of cover material have not consistently been installed as part of the Site operations and maintenance practices.

1.1.2.1 Location

The Site is surrounded by residential homes in all directions; a forest is located to the east. The Site drains north to an unnamed tributary and then 2,500 feet east to Big Black Creek.

1.1.2.2 Description of Threat

On January 4, 2023, ADEM requested assistance from the EPA to conduct air monitoring and air sampling at the Site. The fire at Moody Landfill has been burning since late November 2022. Residents near the fire have filed multiple complaints with the State and St. Clair County as well as with the National Response Center (NRC) regarding the smoke and potential health hazards.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On January 6, 2023, the EPA mobilized to the Site with equipment and personnel to conduct air monitoring and collect air samples at four stations in and around the Site. Two stations were located on the landfill property, and two were established in residential lots less than 200 yards downwind of the Site.

Sampling and monitoring activities were completed on January 7, 2023, and the EPA demobilized from the Site to await analytical results. Air samples were sent off-site for laboratory analysis. Results of analysis of the air samples indicated that four VOCs (1,3-Butadiene, Acetonitrile, Benzene and Trichloroethene) exceeded their respective EPA residential Removal Management Levels (RMLs) at the onsite sampling stations. Two VOCs (1,3-Butadiene and Benzene) exceeded their respective RMLs at a sampling station on a residential lot.

ADEM and St. Clair County have inspected the Site, conducted air monitoring, and implemented public outreach efforts. Local firefighting resources have responded with attempts to extinguish the fire that have been unsuccessful. In November of 2022, Alabama Forestry Commission cut a fire break around the perimeter of the Site to reduce the risk of ignition in adjacent parcels. Representatives from State and Local agencies have attempted to work with the owner and operator of the landfill facility to compel firefighting efforts that have not been successful. St. Clair County and the State of Alabama declared states of emergency on January 3 and 18, 2023, respectively. On January 17, 2023, ADEM and St. Clair County requested EPA assistance to address the continued off-site migration of hazardous substances.

On January 18, 2023, the EPA Federal On-Scene Coordinator (FOSC) determined that an emergency response removal action was warranted based on these sample results.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The EPA has mobilized its Emergency Rapid Response Services (ERRS) contractor, Superfund Technical Assessment and Response Team (START) contractor and the EPA Environmental Response Team (ERT). With assistance from ADEM and St. Clair County, the EPA has identified a source that can be used as cover material to conduct assist with fire mitigation activities.

Four air monitoring stations have been deployed in the community around the Site. Air monitoring units are operating 24 hours per day and transmitting data remotely to EPA's "VIPER" database. Sensors include a DustTrak for particulate monitoring and MultiRAE Pro for gas monitoring. Data summary reports are being produced each day for a timeframe covering 6:00am on the previous day to 6:00am on the current day. Air samples are also being collected at each station daily for Volatile Organic Compounds (VOCs) and Poly-Aromatic Hydrocarbons (PAHs).

Initial efforts of firefighting with heavy equipment includes re-grading the Site and spraying with water for emissions control. Local dirt will be used to encapsulate the landfill to reduce air infiltration; the lack of oxygen will eventually smother (i.e. suffocate) the fire.

2.1.2 Response Actions to Date

FRIDAY, JANUARY 20:

- ERRS continued grading the Site, beginning near the buildings on the southeast end and proceeding westward. Large logs and concrete that impede grading are being set aside.
- A borrow pit was identified at 2.5 miles from the Site. The landowner is mobilizing equipment to begin preparation of a haul road. ADEM provided emergency authorization for the landowner to begin preparing the borrow pit. Site preparation included the installation of silt fencing where necessary.
- Gravel was obtained for stabilizing some roads on the Site and for stabilizing the soil around a fire hydrant that will be used as a water source.
- ERT completed deployment of all four air monitoring stations and installed an air monitor inside the bulldozer used by ERRS. All data and telemetry is being received on the VIPER data server without issues.
- START deployed VOC and PAH samplers at each of the four monitoring stations. These samples will be completed on Saturday.
- The EPA FOSC met with multiple residents to obtain access agreements

SATURDAY, JANUARY 21:

- ERRS continued grading the Site, proceeding further westward and southward. Grading progress is limited by the edge of the pile on the west and south which is steep and must be managed with cover material.
- 23,000 gallons of water was applied during the day for emissions control
- Construction of the haul road on the borrow pit is progressing. Gravel is needed for the haul road and the quarry will be closed over the weekend, limiting work that can be done. However, rain arrived overnight and this would have limited work with or without the installation of gravel.
- The FOSC directed ERRS to determine if a nearby municipal waste landfill had cover material that could be purchased and hauled to the Site. ERRS reached out and was told that the cover material was not available for sale.
- ERT installed air monitors in one excavator and inside the bulldozer used by ERRS. ERT also installed a weather station at air monitoring station 3. This weather station and a NOAA station at Birmingham International Airport are reporting wind and weather data to the VIPER data server.
- START collected 4 VOC and 4 PAH samples during the day and deployed equipment for the next round of air samples to be completed Sunday.
- START began recording mobile air monitoring results using Survey123. These data are displayed in a public story map.
- The EPA FOSC met with residents to obtain an access agreement for one property. There is one property remaining where a signed access agreement is needed.

SUNDAY, JANUARY 22:

- Rain overnight caused significant smoke and steam accumulation near the ground surface at the Site. ERRS worked at the Site with supplied air or with respirators and air monitors for Carbon Monoxide. The excavators and bulldozer were outfitted with racks for holding the breathing air bottles. Grading continued with efforts to suppress and compact areas where emissions were breaching the top of the landfill.
- No water was applied during the day for emissions control due to rain
- No work was done on the borrow pit haul road this day. Work will resume on Monday when gravel can be installed.
- ERT maintained air monitoring stations and the air monitors in the ERRS equipment
- START collected 4 VOC and 4 PAH samples along with QC samples during the day and deployed equipment for the next round of air samples to be completed Monday
- The EPA FOSC met with a representative from ADEM, touring the Site and the surrounding area, and also deployed 15 signs in neighborhoods around the Site which advertise the EPA's response.epa.gov webpage for the Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA will continue to identify PRPs for the Site.

2.1.4 Progress Metrics

At present, no waste materials are anticipated to leave the Site.

- 23,000 gallons of water have been applied for emissions control
- 0 cubic yards of cover material have been installed
- 8 VOC air samples and 8 PAH air samples have been collected since daily sampling started on 1/19/2022

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

- Prepare and implement a health and safety plan; (COMPLETE)
- Conduct fire mitigation operations and debris stockpile management in order to reduce the risk of reignition; (ONGOING)
- Mitigate off-site impacts due to firefighting operations to the extent practicable; (ONGOING)
- If deemed necessary, provide relocation to affected residents until ambient air conditions allow for re-occupancy;
- Conduct and maintain air quality monitoring and air sampling; and, (ONGOING)
- Prepare and implement an outreach plan to notify the community of response activities and air quality conditions. (ONGOING)

2.2.1.2 Next Steps

- Fire mitigation activities will continue with additional grading and compaction
- The borrow pit haul road is projected to be ready by the end of the day on Monday, January 22 so that hauling of cover material can begin on Tuesday
- START will collect a sample of the borrow pit for laboratory analysis
- A wind-rose will be added to the data summary reports beginning Monday, January 22

2.2.2 Issues

Air monitors at Station 3 have reported significant spikes of PM2.5 beyond 1000 ug/m3 and air monitors in the equipment on the landfill are reporting high levels of Carbon Monoxide over the NIOSH TWA of 35ppm. On 1/21/2022 the FOSC directed ERRS to implement the following safety measures for the next operational period:

- All equipment operators on the landfill will be on supplied breathing air
- Personnel in the staging area on the landfill will either be on breathing air OR wearing a respirator and carrying, or working near, a CO monitor
- Time on the landfill should be limited to the performance of specific tasks or duties

On 1/22/2022, ERRS installed brackets on the equipment to hold compressed cylinders of breathing air and proceeded to implement the listed requirements. These safety measures will continue for subsequent operational periods until air monitoring results show sufficient reductions in PM2.5 and CO, and the FOSC on-site concurs that the measures no longer necessary

2.3 Logistics Section

ERRS will mobilize additional trucks and drivers to haul dirt from the borrow pit when the haul road at the borrow site is ready

2.4 Finance Section

2.4.1 Narrative

An Emergency Response Action Memorandum has been signed with a ceiling of \$250,000 pursuant to the Federal On-Scene Coordinator's delegated authority under CERCLA Section 104. A Ceiling Increase Action Memorandum has been drafted and routed for signature.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$100,000.00	\$55,000.00	\$45,000.00	45.00%
TAT/START	\$50,000.00	\$25,000.00	\$25,000.00	50.00%
EPA RRC	\$20,000.00	\$5,000.00	\$15,000.00	75.00%
REAC	\$80,000.00	\$12,000.00	\$68,000.00	85.00%
Intramural Costs				
Total Site Costs	\$250,000.00	\$97,000.00	\$153,000.00	61.20%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

EPA ERT is assisting with Site Safety and provided the FOSC with critical information about measurements of CO in the operational area

2.5.2 Community Liaison Officer

EPA has identified a Community Involvement Coordinator for the Site and contact information has been listed on the public page for the Site at response.epa.gov

2.5.3 Information Officer

EPA has identified a Public Information Officer for the Site contact information has been listed on the public page for the Site at response.epa.gov

3. Participating Entities

Unified Command

EPA
ADEM
St. Claire County

4. Personnel On Site

EPA Region 4 - 1
EPA ERT - 1
EPA ERT REAC - 2
EPA START - 3
EPA ERRS - 8
ADEM - 1
St. Claire County - 0

5. Definition of Terms

ADEM - Alabama Department of Environmental Management
CO - Carbon Monoxide
EPA - Environmental Protection Agency
ERRS - EPA's Emergency Rapid Response Services contractor
ERT - EPA's Environmental Response Team
FOSC - Federal On-Scene Coordinator (same as OSC)
OSC - On-Scene Coordinator (same as FOSC)
PAH - Poly-Aromatic Hydrocarbon
PM2.5 - Particulate matter smaller than 2.5 microns
PRP - Potentially Responsible Party
START - EPA's Superfund Technical Assessment and Response Team contractor
VIPER - EPA's response monitoring database (not an acronym)
VOC - Volatile Organic Compound

6. Additional sources of information

Information is being released to the public through the Site webpage at response.epa.gov/MoodyLandfillFire

7. Situational Reference Materials

No information available at this time.